

1 **ABSTRACT**

2 An image processing system generates a base layer that represents a low-
3 resolution portion of a source image. The image processing system also generates
4 an enhancement layer that represents a high-resolution portion of the source
5 image. The base layer has an associated aspect ratio and the enhancement layer
6 has an associated aspect ratio that differs from the aspect ratio associated with the
7 base layer. The aspect ratio associated with the base layer corresponds to an
8 aspect ratio associated with low-resolution televisions. The aspect ratio associated
9 with the enhancement layer corresponds to an aspect ratio associated with high-
10 resolution televisions. The base layer can be generated by low-pass filtering the
11 source image and the enhancement layer can be generated by high-pass filtering
12 the source image. The base layer can also be generated by subtracting a portion of
13 the base layer from a corresponding portion of the source image. An image
14 decoding system is used to identify the base layer and the enhancement layer from
15 a transport stream and recreate the source image.

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